REMARKS

Claims 1 through 33 were presented for examination and were pending in this application. In an Office Action dated May 31, 2005, ("Office Action") claims 1 through 33 were rejected. Applicant thanks Examiner for examination of the claims pending in this application and addresses Examiner's comments below.

Applicant herein amends claims 1-6, 9-15, 18-23, and 26-33. No claims are deleted or added. These changes merely correct ministerial errors such as improper antecedent basis, spelling and dependencies. They are believed not to introduce new matter and their entry is respectfully requested. In making this amendment, Applicant has not and does not narrow the scope of the protection to which Applicant considers the claimed invention to be entitled and does not concede that the subject matter of such claims was in fact disclosed or taught by the cited prior art. Rather, Applicant reserves the right to pursue additional protection at a later point in time.

Based on the following Remarks, Applicant respectfully requests that Examiner reconsider all outstanding rejections, and withdraw them.

Response to Rejection Under 35 USC 103(a) in View of Chiu and Dietz

In the 5th paragraph of the Office Action, Examiner rejects claims 1 through 33 under 35 U.S.C. § 103(a) as allegedly being unpatentable in view of U.S. Patent No. 5,101,402 to Chiu et al. ("Chiu") and U.S. Patent No. 6,651,099 to Dietz et al. ("Dietz"). This rejection is respectfully traversed.

Claim 1 is directed to a method for providing unique identification of monitored network data instances flowing across various connections between networked devices. Each

unique identification is derived from information contained entirely within an instance of network data. As amended, the method recites:

> using a monitoring device to monitor a network data instance flowing across a data connection;
>
> deriving from the data instance certain information which collectively provides a unique identification of the network data instance;
>
> assembling the derived information into an input string for a hash function; and
>
> using an output string of the hash function as a signature which represents a unique identifier of the network data instance.

Similarly, claim 18 is directed to an apparatus for providing unique identification of monitored network data instances flowing across various connections between networked devices. With the apparatus, each unique identification is derived from information contained entirely within an instance of network data. As amended, the apparatus comprises:

> a monitoring device positioned to monitor a network data instance flowing across a data connection;
>
> a hash function device having an input string and an output string, the input string assembled from certain information derived from the network data instance, the information collectively providing a unique identification of the network data instance;
>
> wherein the output string is used as a signature which represents a unique identifier of the network data instance.

The claimed invention beneficially provides a signature capable of uniquely identifying a network data instance. The signature is capable of uniquely identifying a particular data packet as well as a session to which the packet belongs. Example applications of a signature include tracking a data instance, identifying duplicates of the data instance transmitted along different network connections, and deleting duplicate data reports for the data instance.

As recited in claims 1 and 18, the signature is generated in compressed form as the output of a hash function, thereby enabling efficient transmission, storage and lookup of the

signature. Neither Chiu nor Dietz, either alone or in combination, disclose, teach, or suggest the claimed invention.

Claim 1, as amended, recites: "using an output string of the hash function as a signature which represents a unique identifier of the network data instance." Claim 18, as amended, recites: "wherein the output string is used as a signature which represents a unique identifier of the network data instance." Applicant agrees with Examiner that Chiu does not disclose using the output of a hash function as a signature which represents a unique identifier of a network data instance. Moreover, Dietz neither discloses nor suggests this feature of claims 1 and 18.

The cited portions of Dietz are directed to hashing a flow signature to generate a hash. Dietz, col. 6, lines 18-19; col. 13, lines 20-23 and 30-36. The hash in Dietz is used for "conventional" purposes, namely "to spread flow entries identified by the signature across a database for efficient searching." Dietz, col. 13, lines 31-34. Specifically, the hash is used merely to locate a signature in a flow entry database. Dietz, col. 14, lines 14-34; col.20, lines 19-23. As previously explained, the hash in Dietz is functionally distinct from the signature recited in claims 1 and 18. See Amendment B dated February 22, 2005, pages 10-11. First, the hash does not represent "a unique identifier of the network data instance" because Dietz uses a flow signature separate from the hash to identify a particular flow entry. Dietz, col. 6, lines 18-19; col. 13, lines 20-29; col. 14, lines 39-42; col. 20, lines 18-22. In fact, the hash in Dietz is incapable of independently identifying a network data instance. *Id.* Further, the hash in Dietz is not intended to be *a unique identifier* because more than one flow entries can be stored in a bin corresponding to the same hash. *Id.* The hash in Dietz does not disclose or suggest using the output of a hash function as a signature because the hash in Dietz is

incapable of uniquely identifying a network data instance. Therefore, neither Dietz nor Chiu discloses or suggests a compressed signature that uniquely identifies a network data instance while also being capable of efficient transmission, storage and lookup.

Further, neither Chiu nor Dietz discloses or suggests "a signature which represents a unique identifier *of the network data instance*" (emphasis added) as recited in claims 1 and 18. The signature recited in claims 1 and 18 is capable of uniquely identifying a particular packet as well as a session or flow to which the packet belongs. See Amendment A dated May 27, 2004, pages 11-12. However, neither Chiu nor Dietz discloses or suggests a signature that is capable of uniquely identifying a particular network data instance such as a packet. The cited portions of Chiu merely describe a session key that is used to identify a session. Chiu, col. 9, lines 1-9. Similarly, the cited portions of Dietz merely describe a flow key that is used to build a flow signature for a flow. Dietz, col. 6, lines 18-19; col. 13, lines 20-23. Therefore, neither Chiu nor Dietz discloses or suggests a signature that is capable of tracking a particular data instance as well as a session or flow.

As previously recited, claim 33 and the dependent claims recite additional patentable features of the claimed invention that are not disclosed or suggested by Chiu or Dietz, either alone or in combination. For example, claims 3 and 33 recite transmitting a data report and signature from a monitoring device to a central collecting device, while claim 20 recites a central collection device that receives the transmitted signature. The cited portions of Chiu merely mention a central node that collects information (Chiu, col. 12, lines 7-14); however, Chiu does not disclose or suggest transmitting a signature generated using the output of a hash function to a central collecting device. To provide another example, Examiner fails to identify where, if at all, Chiu or Dietz disclose truncating the signature to include fewer bits

as recited in claims 13 and 30. Examiner's unsupported assertion that this feature is obvious is unpersuasive because both Chiu and Dietz fail to disclose or suggest a compressed signature generated by truncation of a hash function output string.

In summary, Applicant respectfully requests reconsideration and removal of the basis of the reject to claims 1 through 33. Applicant also requests allowance of these claims at this time.

Conclusion

In sum, Applicant respectfully submits that claims 1 through 33, as presented herein, are patentably distinguishable over the cited references (including references cited, but not applied). Therefore, Applicant requests reconsideration of the basis for the rejections to these claims and requests allowance of them.

In addition, Applicant respectfully invites Examiner to contact Applicant's representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

Respectfully Submitted,
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